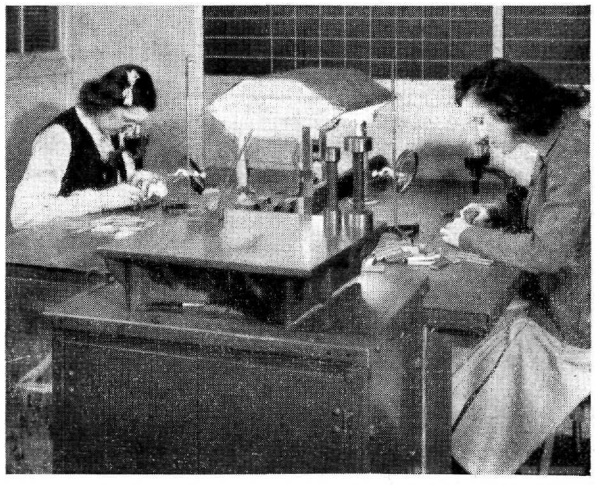


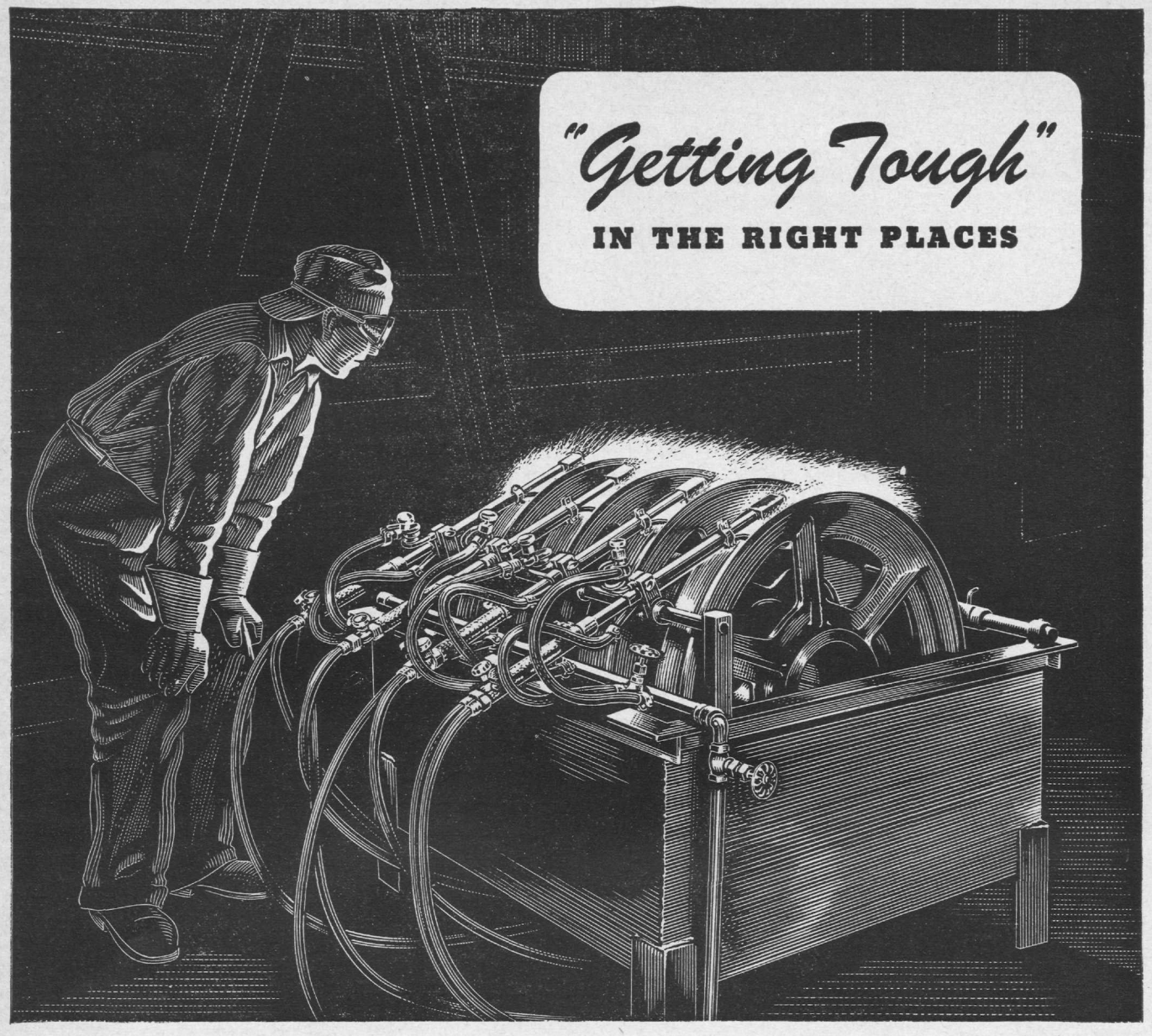
—Courtesy General Electric.

Inspection with sodium light

SODIUM LIGHT FOR MICROSCOPIC FLAW DETECTION

Sodium light is being used in important war plants for surface inspection by microscope. The sodium lamp is essentially an arc lamp, and differs from the incandescent in that it requires a special socket and individual control for each lamp.

The unusual perception of detail under sodium illumination is due to the monochromatic nature of the light. The eye focuses only one color wave at a time. Because other colors in the beam tend to fog the picture, minute details may be lost in examining an object under a light which contains all wave bands.



CABLE sheaves for mining, drilling, and hoisting equipment are subjected to unusually heavy strains these war days. To stand up under continuous operation, the sheaves must combine hardness at the wearing surfaces with toughness in the spokes and hubs — contradictory properties not usually possible in a one-piece metal part.

How could these two conflicting metal characteristics be incorporated in the sheaves, without sacrificing either necessary quality?

Oxyacetylene flame-hardening provided the answer. Now the cable grooves, which are most exposed to wear, are given a hard, wear-resistant skin by flame hardening, while the remainder of the sheave retains the required shock-resistance that is already present in the parent metal.

Thanks to the localized protection afforded by this modern preventive treatment, the life-expectancy of the sheaves has been greatly extended, and another threatening operating problem has been nipped in the bud.

Many other equally successful techniques have been developed by Air Reduction service engineers for the application of oxyacetylene flame and electric arc processes to individual manufacturing needs.

If you want to keep posted on some recent developments of oxyacetylene flame and arc processes, write for a free copy of the illustrated booklet "Airco in the News." Please address requests to Air Reduction, Room 1656, 60 East 42nd Street, New York.

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